

Preliminary Amendment

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Applicant(s): Eugene G. JOSEPH et al.

Serial No. 09/847,942

Filed: May 2, 2001

For: PRESSURE SENSITIVE ADHESIVE ARTICLE FIBERS WITH A REINFORCING MATERIAL

A¹
compending U.S. Patent Application Serial No. 09/764540, entitled "Stretch Removable Adhesive Articles and Methods," filed on 01/17/2001, and U.S. Patent Application Serial No. 09/847,941, entitled "Tapered Stretch Removable Adhesive Articles And Methods," filed on even date herewith.--

Please replace the paragraph beginning at page 13, line 22, with the following rewritten paragraph. Per 37 C.F.R. §1.121, this paragraph is also shown in Appendix A with notations to indicate the changes made.

A²
--A crosslinking agent can be used if so desired to build the molecular weight and the strength of the copolymer of the adhesive component of the fibers, and hence improve the integrity and shape of the fibers. Preferably, the crosslinking agent is one that is copolymerized with monomers A and B. The crosslinking agent may produce chemical crosslinks (e.g., covalent bonds or ionic bonds). Alternatively, it may produce thermal reversible physical crosslinks that result, for example, from the formation of reinforcing domains due to phase separation of hard segments (i.e., those having a Tg higher than room temperature, preferably higher than 70°C) and/or acid/base interactions (i.e., those involving functional groups within the same polymer or between polymers or between a polymer and an additive). Preferred crosslinking occurs through the use of macromers, such as the styrene macromers of U.S. Pat. No. 4,554,324 (Husman et al.), or polymeric ionic crosslinking as described in WO 99/42536. Suitable crosslinking agents are also disclosed in U.S. Pat. Nos. 4,737,559 (Kellen et al.), 5,506,279 (Babu et al.), and 6,083,856 (Joseph et al.).--

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Please replace the paragraph beginning at page 21, line 1, with the following rewritten paragraph. Per 37 C.F.R. §1.121, this paragraph is also shown in Appendix A with notations to indicate the changes made.

A3 -- Multicomponent fibers, if formed by the melt-blown process, can be produced as described in U.S. Pat. Nos. 5,176,952 (Joseph et al.); 5,232,770 (Joseph); 5,238,733 (Joseph et al.); 5,258,220 (Joseph); or 5,248,455 (Joseph et al.). Multicomponent fibers can also be produced by a spunbond process as disclosed in U.S. Pat. Nos. 5,695,868 (McCormack); 5,336,552 (Strack et al.); 5,545,464 (Stokes); 5,382,400; 5,512,358 (Shawver et al.); or 5,498,463 (McDowall et al.).--

Please replace the paragraph beginning at page 26, line 2, with the following rewritten paragraph. Per 37 C.F.R. §1.121, this paragraph is also shown in Appendix A with notations to indicate the changes made.

A4 -- A pressure sensitive adhesive containing minimicrofibrous reinforcing material was prepared from a mixture of 90% PSA 1 and 10% EXACT 4023. This preparation was extruded through a twin screw extruder manufactured by Brabender Corp. (BRABENDER PREP CENTER, available from C.W. Brabender Instruments, Inc., South Hackensack, NJ) and was fed to a drilled orifice melt-blown die (each hole 0.4826 mm in diameter). The die was drilled with 5.9 holes per cm (15 holes per inch) and was maintained at a temperature of 190°C. The adhesive feeder was maintained at 190°C while the polyethylene was fed in pellet form into the extruder to maintain 10% polyethylene of the final adhesive composition. A nonwoven web with a basis weight of 75 grams per square meter (gsm or g/m²) was collected on double-coated silicone release paper (DCP-Lohja Inc., Westchester, IL) using a rotating drum collector at a collector to die distance of 17.8 cm (7 inches). --

Please replace the paragraph beginning at page 26, line 17, with the following rewritten paragraph. Per 37 C.F.R. §1.121, this paragraph is also shown in Appendix A with notations to indicate the changes made.

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A5
-- A pressure sensitive adhesive containing minimicrofibrous reinforcing material was prepared from a mixture of 80% PSA 1 and 20% EXACT 4023. This preparation was extruded through a twin screw extruder manufactured by Brabender Corp. and was fed to a drilled orifice melt-blown die (each hole 0.4826 mm in diameter). The die was drilled with 5.9 holes per cm (15 holes per inch) and was maintained at a temperature of 190°C. The adhesive feeder was maintained at 190°C while the polyethylene was fed in pellet form into the extruder to maintain 20% polyethylene of the final adhesive composition. A nonwoven web with a basis weight of 75 gsm was collected on double-coated silicone release paper using a rotating drum collector at a collector to die distance of 17.8 cm (7 inches). --

Please replace the paragraph beginning at page 26, line 30, with the following rewritten paragraph. Per 37 C.F.R. §1.121, this paragraph is also shown in Appendix A with notations to indicate the changes made.

A6
-- A pressure sensitive adhesive containing minimicrofibrous reinforcing material was prepared from a mixture of 70% PSA 1 and 30% EXACT 4023. This preparation was extruded through a twin screw extruder manufactured by Brabender Corp. and was fed to a drilled orifice melt-blown die (each hole 0.4826 mm in diameter). The die was drilled with 5.9 holes per cm (15 holes per inch) and was maintained at a temperature of 190°C. The adhesive feeder was maintained at 190°C while the polyethylene was fed in pellet form into the extruder to maintain 30% polyethylene of the final adhesive composition. A nonwoven web with a basis weight of 75 gsm was collected on double-coated silicone release paper using a rotating drum collector at a collector to die distance of 17.8 cm (7 inches). --

Please replace the paragraph beginning at page 27, line 10, with the following rewritten paragraph. Per 37 C.F.R. §1.121, this paragraph is also shown in Appendix A with notations to indicate the changes made.

A7
-- A pressure sensitive adhesive containing minimicrofibrous reinforcing material was prepared from a mixture of 90% PSA 1 and 10% EXACT 4023. This preparation was extruded

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A7
through a twin screw extruder manufactured by Brabender Corp. and was fed to a drilled orifice melt-blown die (each hole 0.4826 mm in diameter). The die was drilled with 5.9 holes per cm (15 holes per inch) and was maintained at a temperature of 190°C. The adhesive feeder was maintained at 190°C while the polyethylene was fed in pellet form into the extruder to maintain 10% polyethylene of the final adhesive composition. A nonwoven web with a basis weight of 55 gsm was collected on double-coated silicone release paper using a rotating drum collector at a collector to die distance of 17.8 cm (7 inches). --

Please replace the paragraph beginning at page 27, line 23, with the following rewritten paragraph. Per 37 C.F.R. §1.121, this paragraph is also shown in Appendix A with notations to indicate the changes made.

A8
-- A pressure sensitive adhesive containing minimicrofibrous reinforcing material was prepared from a mixture of 90% PSA 1 and 10% EXACT 4023. This preparation was extruded through a twin screw extruder manufactured by Brabender Corp. and was fed to a drilled orifice melt-blown die (each hole 0.4826 mm in diameter). The die was drilled with 5.9 holes per cm (15 holes per inch) and was maintained at a temperature of 190°C. The adhesive feeder was maintained at 190°C while the polyethylene was fed in pellet form into the extruder to maintain 10% polyethylene of the final adhesive composition. A nonwoven web with a basis weight of 65 gsm was collected on double-coated silicone release paper using a rotating drum collector at a collector to die distance of 17.8 cm (7 inches). --

Please replace the paragraph beginning at page 28, line 2, with the following rewritten paragraph. Per 37 C.F.R. §1.121, this paragraph is also shown in Appendix A with notations to indicate the changes made.

A9
-- A pressure sensitive adhesive containing minimicrofibrous reinforcing material was prepared from a mixture of 85% PSA 1 and 15% EXACT 4023. This preparation was extruded through a twin screw extruder manufactured by Brabender Corp. and was fed to a drilled orifice melt-blown (each hole 0.4826 mm in diameter). The die was drilled with 5.9 holes per cm (15 holes per inch) and was maintained at a temperature of 190°C. The adhesive feeder was

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A9 maintained at 190°C while the polyethylene was fed in pellet form into the extruder to maintain 15% polyethylene of the final adhesive composition. A nonwoven web with a basis weight of 55 gsm was collected on double-coated silicone release paper using a rotating drum collector at a collector to die distance of 17.8 cm (7 inches). --

Please replace the paragraph beginning at page 28, line 15, with the following rewritten paragraph. Per 37 C.F.R. §1.121, this paragraph is also shown in Appendix A with notations to indicate the changes made.

A10 -- A pressure sensitive adhesive containing minimicrofibrous reinforcing material was prepared from a mixture of 85% PSA 1 and 15% EXACT 4023. This preparation was extruded through a twin screw extruder manufactured by Brabender Corp. and was fed to a drilled orifice melt-blown die (each hole 0.4826 mm in diameter). The die was drilled with 5.9 holes per cm (15 holes per inch) and was maintained at a temperature of 190°C. The adhesive feeder was maintained at 190°C while the polyethylene was fed in pellet form into the extruder to maintain 15% polyethylene of the final adhesive composition. A nonwoven web with a basis weight of 65 gsm was collected on double-coated silicone release paper using a rotating drum collector at a collector to die distance of 17.8 cm (7 inches). --

Please replace the paragraph beginning at page 28, line 28, with the following rewritten paragraph. Per 37 C.F.R. §1.121, this paragraph is also shown in Appendix A with notations to indicate the changes made.

A11 -- A pressure sensitive adhesive containing minimicrofibrous reinforcing material was prepared from a mixture of 85% PSA 1 and 15% EXACT 4023. This preparation was extruded through a twin screw extruder manufactured by Brabender Corp. and was fed to a drilled orifice melt-blown die (each hole 0.4826 mm in diameter). The die was drilled with 5.9 holes per cm (15 holes per inch) and was maintained at a temperature of 190°C. The adhesive feeder was maintained at 190°C while the polyethylene was fed in pellet form into the extruder to maintain 15% polyethylene of the final adhesive composition. A nonwoven web with a basis weight 75 gsm was collected on double-coated silicone release paper using a rotating drum collector at a

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A11
collector to die distance of 17.8 cm (7 inches). --

Please replace the paragraph beginning at page 29, line 7, with the following rewritten paragraph. Per 37 C.F.R. §1.121, this paragraph is also shown in Appendix A with notations to indicate the changes made.

A12
-- A pressure sensitive adhesive containing minimicrofibrous reinforcing material was prepared from a mixture of 90% PSA 1 and 10% EXACT 3040. This preparation was extruded through a twin screw extruder manufactured by Brabender Corp. and was fed to a drilled orifice melt-blown die (each hole 0.4826 mm in diameter). The die was drilled with 5.9 holes per cm (15 holes per inch) and was maintained at a temperature of 190°C. The adhesive feeder was maintained at 190°C while the polyethylene was fed in pellet form into the extruder to maintain 10% polyethylene of the final adhesive composition. A nonwoven web with a basis weight of 55 gsm was collected on double-coated silicone release paper using a rotating drum collector at a collector to die distance of 17.8 cm (7 inches). --

Please replace the paragraph beginning at page 29, line 20, with the following rewritten paragraph. Per 37 C.F.R. §1.121, this paragraph is also shown in Appendix A with notations to indicate the changes made.

A13
-- A pressure sensitive adhesive containing minimicrofibrous reinforcing material was prepared from a mixture of 90% PSA 1 and 10% EXACT 3040. This preparation was extruded through a twin screw extruder manufactured by Brabender Corp. and was fed to a drilled orifice melt-blown die (each hole 0.4826 mm in diameter). The die was drilled with 5.9 holes per cm (15 holes per inch) and was maintained at a temperature of 190°C. The adhesive feeder was maintained at 190°C while the polyethylene was fed in pellet form into the extruder to maintain 10% polyethylene of the final adhesive composition. A nonwoven web with a basis weight of 65 gsm was collected on double-coated silicone release paper using a rotating drum collector at a collector to die distance of 17.8 cm (7 inches). --

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Please replace the paragraph beginning at page 29, line 33, with the following rewritten paragraph. Per 37 C.F.R. §1.121, this paragraph is also shown in Appendix A with notations to indicate the changes made.

A14
-- A pressure sensitive adhesive containing minimicrofibrous reinforcing material was prepared from a mixture of 83% PSA 1 and 17% EXACT 3040. This preparation was extruded through a twin screw extruder manufactured by Brabender Corp. and was fed to a drilled orifice melt-blown die (each hole 0.4826 mm in diameter). The die was drilled with 5.9 holes per cm (15 holes per inch) and was maintained at a temperature of 190°C. The adhesive feeder was maintained at 190°C while the polyethylene was fed in pellet form into the extruder to maintain 17% polyethylene of the final adhesive composition. A nonwoven web with a basis weight of 55 gsm was collected on double-coated silicone release paper using a rotating drum collector at a collector to die distance of 17.8 cm (7 inches). --

Please replace the paragraph beginning at page 30, line 12, with the following rewritten paragraph. Per 37 C.F.R. §1.121, this paragraph is also shown in Appendix A with notations to indicate the changes made.

A15
-- A pressure sensitive adhesive containing minimicrofibrous reinforcing material was prepared from a mixture of 83% PSA 1 and 17% EXACT 3040. This preparation was extruded through a twin screw extruder manufactured by Brabender Corp. and was fed to a drilled orifice melt-blown die (each hole 0.4826 mm in diameter). The die was drilled with 5.9 holes per cm (15 holes per inch) and was maintained at a temperature of 190°C. The adhesive feeder was maintained at 190°C while the polyethylene was fed in pellet form into the extruder to maintain 17% polyethylene of the final adhesive composition. A nonwoven web with a basis weight of 75 gsm was collected on double-coated silicone release paper using a rotating drum collector at a collector to die distance of 17.8 cm (7 inches). --

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Please replace the paragraph beginning at page 30, line 25, with the following rewritten paragraph. Per 37 C.F.R. §1.121, this paragraph is also shown in Appendix A with notations to indicate the changes made.

A16 -- A pressure sensitive adhesive containing minimicrofibrous reinforcing material was prepared from a mixture of 75% PSA 1 and 25% EXACT 3040. This preparation was extruded through a twin screw extruder manufactured by Brabender Corp. and was fed to a drilled orifice melt-blown die (each hole 0.4826 mm in diameter). The die was drilled with 5.9 holes per cm (15 holes per inch) and was maintained at a temperature of 190°C. The adhesive feeder was maintained at 190°C while the polyethylene was fed in pellet form into the extruder to maintain 25% polyethylene of the final adhesive composition. A nonwoven web with a basis weight of 55 gsm was collected on double-coated silicone release paper using a rotating drum collector at a collector to die distance of 17.8 cm (7 inches). --

Please replace the paragraph beginning at page 31, line 5, with the following rewritten paragraph. Per 37 C.F.R. §1.121, this paragraph is also shown in Appendix A with notations to indicate the changes made.

A17 -- A pressure sensitive adhesive containing minimicrofibrous reinforcing material was prepared from a mixture of 75% PSA 1 and 25% EXACT 3040. This preparation was extruded through a twin screw extruder manufactured by Brabender Corp. and was fed to a drilled orifice melt-blown die (each hole 0.4826 mm in diameter). The die was drilled with 5.9 holes per cm (15 holes per inch) and was maintained at a temperature of 190°C. The adhesive feeder was maintained at 190°C while the polyethylene was fed in pellet form into the extruder to maintain 25% polyethylene of the final adhesive composition. A nonwoven web with a basis weight of 75 gsm was collected on double-coated silicone release paper using a rotating drum collector at a collector to die distance of 17.8 cm (7 inches). --